AD/TD Joint Projects Meeting
Wednesday, 17 November 2004, 1:15 PM
Club 157, Trailer 157

Present: Pushpa Bhat, John Carson, Paul Czarapata, Hank Glass, Dave Harding (scribe), Peter Garbincius, Gregg Kobliska, John Zweibohmer

Review of Tasks and Priorities

LEP corrector coils (#274, #351)
All magnets for Recycler were delivered. The rest are for MI-8 and MiniBooNE. If there is a time crunch, these could slip. TD is planning to finish all of these by April 2005. The published date of April 2006 is a typographic error.

MuCool (#354, #362, #363)
TD is currently doing no work on the MuCool beam line magnets. If the pulsed C-magnet is going to be ready for installation during the 2005 shutdown, a decision must be made very soon and additional resources must be provided. Until then, we can put those at priority 5.

AP2/Debuncher aperture (#204)
TD has been waiting for months for a promised short list of corrections to the tables delivered in the spring. An engineer and designer will tour the tunnel before the end of the shutdown to document changes made during the shutdown.

Debuncher extraction kicker (#225)
A larger aperture is needed and the original plan was to design and build a new magnet. It became apparent in early 2004 that much of the needed aperture could be achieved just by using a larger beam tube in the same magnet with seemingly minimal modifications to the magnet. That plan was adopted and no work was done on the possible larger magnet. The larger beam tube required moving a seemingly passive plate, but calculations showed that the plate is actually critical to the field shaping, as it carries significant eddy currents. Calculations say that the field strength drops by 20% if just the plate is moved. If the gap is filled with ferrite, the field strength suffers minimally, but the magnet impedance would change dramatically. If we are going to change the impedance that much, we should also open up the vertical aperture, too. This is a long lead time. It will need Chris Jensen's expertise. Beam tubes could be procured in time for the 2005 shutdown. We might well need to build new magnets with small changes before the shutdown, but a decision is needed by the end of December. A meeting is scheduled for 10 December.

Recycler vacuum (#279)
One TD technician is helping with the electron cooling vacuum work and is scheduled to continue that through December.

Anchor anomalies and Kaiser coil measurements (#302, #304)
Data gathering in the tunnel will continue through this week, then there will be an analysis effort to sort it out.

Booster spare kickers (#305)
A TD technician has been assigned to help the AD technician on a crash basis to build a couple of spare Booster kickers and help in other crises.

Debuncher injection septum (#222)
The plan is to fabricate the parts needed to upgrade the current spare (just removed from the tunnel), but not start modifying the magnet until March 2005.

Booster trim package (#291, #292)
Elevate this to priority 1. Intense design work has started. The plan is to build a prototype in FY05 and production in FY06.

Replacement Booster kicker magnets (#364)
This is also part of the Proton Plan. It should be priority 1 also. TD is nearing release of the ceramic beam tube drawings.

WQB wide aperture quad (#295)
Bump this to priority 1, in anticipation of installation in the 2005 shut down. Four are required for the high energy extraction points. One magnet is desired for the injection region. Two are attractive additions to the Main Injector to Recycler transfer points.

Linac PA tube (#285)
This should be bumped to priority 1 also. No progress has been made. AD wants the promised drawings of the existing tubes. This is stalled for want of a designer. The best candidate is working on the WQB and is needed part time on the AP2/Debuncher documentation.

Separator facility (#338)
Condition existing separators (#337)
Separator R&D (#265)
New separators (#339)
The first three tasks are now priority 1. Of the six separators that are not installed, two will remain as spares (as they are now), two are needed for installation in the 2005 shutdown, and the other two are available for R&D on electropolishing electrodes or titanium electrodes. If performance can be improved, more might be installed in 2005. A decision is needed around the end of 2005 on the separators for BTeV. The quote on titanium separators was beyond the budget for production, so alternative fabrication processes are being explored.

The initial plan to build new separators (task #339) has been dropped.

PMAG cores (#360)
TD is treating this as fill-in work until it is informed that the pool of spares cores has been depleted. Parts will be procured so that work can begin quickly if need be.

Conning tower Torlon tube R&D (#230)
When can we close this out?

News

MiniBooNE has been approved for another year of running. AD will build a new horn. There will be some TD inspection work. TD's advice would be to anodize the components.

New jobs

NDB (#371)
Add spacers to trim dipole for P-Bar. This request was just received Tuesday afternoon, but it should be possible to deliver on Friday, with magnetic measurements of a second unit to follow.

WBS issues

TD is revamping its WBS to better align with the LWWBS. Most of the 30.8 tasks will move to 30.9.

The level of project management required for The Proton Plan has not yet been determined. $20M is a threshold for a big jump in formality. AD is working to minimize the work. TD will segregate the individual projects that it is working on within the plan so that if the costs need to be moved they can be.
(http://beamdocs.fnal.gov/cgi-bin/public/DocDB/ShowDocument?docid=1441)

Future meeting times

Hearing no complaints, future meetings will be at 1:15 PM on the first and third Wednesday of each month in Club 157.

Next Meeting: Wednesday, 1 December 2004, 1:15 PM
Club 157 in Trailer 157